UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,794	07/02/2003	Guy Vanney	0B-044900US-82410.0195	7352

55962 7590 02/25/2008

SJM/AFD-WILEY
14901 DEVEAU PLACE
MINNETONKA, MN 55345-2126

EXAMINER	
PAPAPIETRO, JACQUELINE M	

ART UNIT	PAPER NUMBER
3739	

MAIL DATE	DELIVERY MODE
02/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/613,794	VANNEY, GUY	
	Examiner	Art Unit	
	JACQUELINE PAPAPIETRO	3739	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 December 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-6, and 10-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Swanson et al (US 6171306 B1).

Regarding claim 1, Swanson discloses an ablation catheter (12) comprising: a tubular body (flexible body, 42, Fig 6) having a distal end region, the tubular body defining at least a partial curve along the distal end region of the tubular body (see Fig 6), the partial curve being adapted to change curvature (via steering mechanism 18, column 7 lines 31-35); and at least one electrode (44) arranged along the at least partial curve (Fig 6), the at least one ablating electrode being adapted to change curvature along with the at least partial curve along the distal end region of the tubular body (column 7 lines 54-57 and column 8 lines 7-11), wherein the at least one electrode is configured to be flexible and resilient (column 7 lines 26-57).

Regarding claim 3, Swanson discloses the ablation catheter of claim 1 further comprising a flexible and resilient shaping element (26).

Regarding claim 4, Swanson discloses the ablation catheter of claim 1 wherein the at least one flexible and resilient electrode is comprised, at least partially, of material

selected from the group consisting of platinum, gold, stainless steel, and composite of conductive polymer metal (column 7 lines 38-40).

Regarding claim 5, Swanson discloses the ablation catheter of claim 1 wherein the at least one electrode strand defines a saw tooth pattern (formed by the cylindrical wire being wound around the tubular body; see Figs 6, 7A and 9).

Regarding claim 6, Swanson discloses the ablation catheter of claim 1 wherein the at least partial curve defines an outside radius (inherent with a curved tube), and wherein the at least one electrode defines a first end region and a second end region, and wherein the first end region is coupled with a point along the outside radius of the at least partial curve and wherein the second end region is coupled with a second point along the outside radius of the at least partial curve along the distal end region of the tubular body (see Figs 6 and 10).

Regarding claim 10, Swanson discloses the ablation catheter of claim 1 wherein the at least partial curve along the distal end region of the tubular body defines a closed loop (Fig 17B).

Regarding claim 11, Swanson discloses the ablation catheter of claim 1 wherein the at least partial curve along the distal end region of the tubular body defines an open loop (Fig 17A).

Regarding claim 12, Swanson discloses the ablation catheter of claim 1 wherein the at least one electrode includes at least one electrode strand (44) interlaced along the at least partial curve (the two strands are interlaced) along the distal end region of the tubular body (Figs 7A-8B).

Regarding claim 13, Swanson discloses the ablation catheter of claim 12 wherein the at least partial curve defines an outside surface, and wherein the at least one electrode strand is interlaced along the outside surface (Figs 6 and 7A-8B).

Regarding claim 14, Swanson discloses the ablation catheter of claim 12 wherein the at least partial curve defines an inside surface, and wherein the at least one electrode strand is interlaced along the inside surface (Fig 6 and Figs 7A-8B).

Regarding claim 15, Swanson discloses the ablation catheter of claim 13 wherein the at least one electrode strand is interlaced along the outside circumference such that the electrode strand is intermittently exposed along the outside circumference (see Figs 8A and 8B, where the electrode strand is defined as the inner strand, which is intermittently exposed).

Regarding claim 16, Swanson discloses the ablation catheter of claim 15 wherein: the at least one electrode strand defines a first length of the at least one strand (defined as any exposed length of 44), the first length defining intermittently exposed sections of the at least one electrode strand (see Figs 8A and 8B); and the at least one electrode strand further defines a second length of the at least one strand (defined as any other exposed length of 44), the second length defining intermittently exposed sections of the at least one electrode strand (see Figs 8A and 8B).

Regarding claim 17, Swanson discloses the ablation catheter of claim 16 wherein the first length of the at least one strand and the second length of the at least one strand cooperate to define a generally continuously exposed segment of the at least one

strand (when the first and second lengths are defined as adjacent lengths that define a generally continuously exposed segment).

Regarding claim 18, Swanson discloses the ablation catheter of claim 17 wherein the generally continuously exposed segment of the at least one strand is coupled with a power supply (inherent) and adapted to be energized thereby during an ablation procedure (column 1 lines 19-20). The catheter inherently must be coupled with a power supply in order to function as an ablation tool.

Regarding claim 19, Swanson discloses an ablation catheter comprising: a tubular shaft (42) defining a distal end region, the tubular shaft further defining at least a partial curve along the distal end region (Fig 6); and flexible and resilient electrode means for conveying ablation energy to a target tissue (44, column 7 line 26), the flexible and resilient electrode means arranged along the at least partial curve along the distal end region of the tubular shaft (Fig 6).

Regarding claim 20, Swanson discloses the ablation catheter of claim 19 wherein the means for conveying ablation energy to a target tissue comprises at least one electrode (44, Figs 7A-8B) arranged in a flexible and resilient configuration (column 7 lines.26-57 and column 8 lines 7-11) along some portion of the at least partial curve along the distal end region of the tubular shaft (Fig 6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swanson as applied to claim 1 above, and further in view of Maschino et al (US 6600956 B2).

Swanson discloses the ablation catheter of claim 1 wherein the electrode is biasedly coupled with the at least partial curve along the distal end region of the tubular body (Figs 6 and 7A-8B), and wherein the biased connection is biased to change the curvature of the at least partial curve along the distal end region of the tubular body (Fig 6). Swanson does not disclose an elastically deformable electrode. Maschino teaches that it is known in the medical art to form electrodes so they are elastically deformable (column 4 lines 11-24). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Swanson by making the electrodes elastically deformable so that the electrode can stretch under small stresses in order to facilitate the curving of the tubular member.

Response to Arguments

Applicant's arguments filed on December 17, 2007 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JACQUELINE PAPAPIETRO whose telephone number is (571)272-1546. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Linda C Dvorak/
Supervisory Patent Examiner, Art Unit 3739

/J. P./
Examiner, Art Unit 3739